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**FINAL DETERMINATION TO EXTEND VARIANCE
FOR COMBINED SEWER OVERFLOW DISCHARGES
TO
LOWER CHARLES RIVER/CHARLES BASIN**

The Department of Environmental Protection (the "Department") hereby extends the Variance for CSO Discharges to the Lower Charles River/Charles Basin from October 1, 2010 for a period not to exceed three years (to October 1, 2013). This action, which authorizes limited CSO discharges, is taken in connection with NPDES permit Nos. MA0103284, MA0101982, and MA 0101192 issued to the Massachusetts Water Resources Authority ("MWRA"), the City of Cambridge, and the Boston Water & Sewer Commission, respectively. This Variance extension is issued pursuant to the Massachusetts Surface Water Quality Standards at 314 CMR 4.00, and subject to the specific conditions which follow. This Variance is intended to provide for the completion of design and construction of CSO controls proposed in the revised Long-Term Control Plan (the "LTCP") mandated in the relevant orders of the United States District Court for the District of Massachusetts, Civil Action Nos. 85-0489-MA and 83-1614-MA, including amended Schedule Six, and a new Schedule Seven, dated April 27, 2006, the Federal Court Order.

Based on a review of the extensive planning documents and reports conducted by the MWRA, the City of Cambridge, and the Boston Water and Sewer Commission, and in consideration of public comments received, and moreover based upon the status of the implementation of the LTCP, the Department has determined that it is not feasible at this time for the MWRA, the City of Cambridge, and the Boston Water & Sewer Commission to fully attain the Class B uses and associated water quality criteria for bacteria for the Lower Charles River/Charles Basin as implementation of more stringent controls at this time beyond those included in the LTCP would result in substantial and widespread economic and social impact.

Issuance of this Variance for CSO discharges to the Lower Charles River/Charles Basin is consistent with EPA Guidance: *Coordinating CSO Long-Term Planning with Water Quality Standard Reviews (July 31, 2001)*, which states that longer term variances and renewal of variances are warranted given the extended duration necessary for implementation of the Long Term CSO Control Plan.

The components of the LTCP for the Lower Charles River/Charles Basin include the recommendations of the *January 2004, Cottage Farm CSO Facility Assessment Report*, with additional wastewater improvements which will further reduce CSO activations and volume at the Cottage Farm facility. Additionally, an abandoned 54-inch sewer crossing beneath the Charles River will be activated in order to convey flow to the Ward Street Headworks and the Deer Island Wastewater Treatment Plant. Separation will occur in specific areas tributary to the Ward Street Headworks and Boston Marginal Conduit. System optimization, outfall closures, and separation in Brookline and the Bullfinch Triangle area are also elements of the LTCP's proposed improvements for the Lower Charles River/Charles Basin.

MWRA in cooperation with the City of Cambridge, and the Boston Water & Sewer Commission shall implement the LTCP. The Department notes that portions of the work included in the LTCP, specifically the sewer separation work in Boston, Cambridge and Brookline are critical to achieving a high level of CSO control in the Charles watershed, and at the same time addressing public health risks associated with sewer backups and flooding.

It is anticipated that this Variance will be incorporated into the NPDES permits for the MWRA, the City of Cambridge, and the Boston Water & Sewer Commission. Failure by the MWRA, the City of Cambridge, or the Boston Water & Sewer Commission to comply with the conditions of this Variance following its effective date and prior to or following permit modification or reissuance will constitute a violation of the permit as in effect on the date of such violation, as well as the Massachusetts Surface Water Quality Standards and Permit Regulations, 314 CMR 3.00.

In consideration of the following conditions, the Department has determined that the extension of the Variance to the Massachusetts Water Resources Authority ("MWRA"), the City of Cambridge, and the Boston Water & Sewer Commission for their CSO discharges to the Lower Charles River/Charles Basin are warranted so that based on information collected and analyses performed in conjunction with the implementation of the LTCP, it ultimately can be determined whether the Class B uses for the Lower Charles River/Charles Basin can be attained.

VARIANCE CONDITIONS

The CSO Variance is conditioned upon MWRA, the City of Cambridge, and the Boston Water & Sewer Commission complying with the following requirements:

A. Implementation of the LTCP

- i. MWRA, the City of Cambridge, and the Boston Water & Sewer Commission shall implement the LTCP for the Lower Charles River/Charles Basin, specified in the 1997 MWRA Final Environmental Impact Report and CSO Facilities Plan and modified by the recommendations for additional work included in the January, 2004 Cottage Farm CSO Facility Assessment Report and other planning documents specified in the Federal Court Order. The implementation schedule for the proposed work shall conform to the requirements of the Federal Court Order, as modified.

B. Other Actions to Minimize CSO/Sanitary Discharges

- i. MWRA, the City of Cambridge, and the Boston Water & Sewer Commission shall continue to implement the Nine Minimum Controls ("NMC"), and monitor CSO activations and volumes. The City of Cambridge and the Boston Water & Sewer Commission each shall submit a report to the Department by April 30, on an annual basis presenting estimates of CSO activations and volumes in the Lower Charles River/Charles Basin for the previous calendar year. On or before April 30 of each year, MWRA shall submit a report to the Department estimating CSO activations and volumes for all CSO outfalls for the previous calendar year in the Lower Charles River/Charles Basin, using the MWRA sewer system model.
- ii. MWRA shall work with the Department and member communities in the Charles River watershed whose sewer system flows affect CSO discharges to the Charles River, to minimize the impacts of I/I flows, and identify opportunities for I/I removal in the upstream sewer systems which may further mitigate CSO discharges. MWRA shall provide technical assistance to communities in developing sewer system models to predict the hydraulic impact and CSO benefits of future flow reductions to be achieved by I/I projects and other sewer system work.
- iii. The City of Cambridge and the Boston Water & Sewer Commission shall respond to any DEP comments on the Infrastructure Studies submitted pursuant to the previous Variance Extension, or any other DEP information requests to clarify the conditions of the combined sewer system, the status of any CSO abatement work, or the frequency and volume of CSO discharges, within 90 days of receiving such comments.

C. Notification to the Public of CSO Discharges and Impacts:

- i. MWRA, the City of Cambridge, and the Boston Water & Sewer Commission shall maintain outfall signs for each permitted CSO outfall which are visible both from the shore and from instream locations for their permitted CSO discharges. Pursuant to the NPDES permits, the following language, at a minimum, shall be included:

WARNING:
WET WEATHER
SEWAGE DISCHARGE
OUTFALL (discharge serial number)

- ii. MWRA, the City of Cambridge, and the Boston Water & Sewer Commission shall collaborate to provide informational notices to boathouses in the areas affected by the CSO discharges and the Community Sailing program to advise the public of CSO discharges and potential public health impacts and to provide contact information and website links. The text of the notice shall be subject to prior approval by the Department.

- iii. Between March 1 and December 1 of each year, the MWRA shall provide email notice to EPA, the Department, local health agents in the communities affected by the CSO discharges, and the Charles River Watershed Association of CSO discharge events at Cottage Farm within 24 hours of the discharge.
- iv. MWRA, the City of Cambridge, and the Boston Water & Sewer Commission shall maintain their respective websites to include general information regarding CSOs, including potential public health impacts, locations of CSO discharges in the Charles River watershed, tables listing CSO activations and volumes identified pursuant to the reporting requirements included in Section B(i), and the overall status of the CSO abatement program.

D. Receiving Water Monitoring

The MWRA shall continue to perform water quality monitoring in the Lower Charles River/Charles Basin to assess the impacts of CSO discharges.

Each year, on or before July 15 for the duration of this Variance, MWRA shall submit to the Department and EPA a report on the previous year's sampling program. The report shall include:

- i. A summary of the receiving water sampling data collected over the past calendar year, including sampling locations and parameters, and comparisons between results in wet and dry weather.
- ii. MWRA has a sampling plan for the Charles River on its website at <http://www.mwra.state.ma.us/harbor/enquad/pdf/2005-13.pdf>. Changes in the schedule, sampling sites, and/or parameters will be provided to the Department for review and approval in advance of implementation of the sampling plan, for each year of this variance.

Subject to the conditions included in this Variance, MWRA, the City of Cambridge, and the Boston Water & Sewer Commission shall be authorized to have CSO discharges during wet weather events to the Charles River. CSO discharges shall be consistent with the performance of the Revised Recommended LTCP after implementation of the Revised Recommended Plan and upon completion of subsequent monitoring to verify that the Long-Term CSO control goals are achieved.

8/26/10
Date Issued

10/1/10
Effective Date


Glenn S. Haas
Assistant Commissioner
Bureau of Resource Protection